

09/496041

STN Search Summary

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FILE 'CAPLUS' ENTERED AT 19:38:34 ON 28 MAR 2001

L1 2123 S GMP! OR (GUANOSINE (2W) MONOPHOSPHATE)
L2 1302 S IMP! OR (INOSINE (2W) MONOPHOSPHATE)
L3 3304 S L1 OR L2
L4 891 S L3 (P) (BIOSYNTHES? OR SYNTHESI? OR PRODUC?)
L5 61 S L4 AND (CORYNE? OR COLI OR SUBTILIS)
L6 14 S L5 AND (SYNTHASE OR SYNTHETASE)
L7 0 S L6 AND KINASE?
L8 2 S L5 AND KINASE?

L6 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2001 ACS

AN 1998:197631 CAPLUS

TI Processes for producing sugar nucleotides and complex carbohydrates

IN Koizumi, Satoshi; Sasaki, Katsutoshi; Endo, Tetsuo; Tabata, Kazuhiko;
Ozaki, Akio

PA Kyowa Hakko Kogyo Co., Ltd., Japan; Koizumi, Satoshi; Sasaki, Katsutoshi;
Endo, Tetsuo; Tabata, Kazuhiko; Ozaki, Akio

SO PCT Int. Appl., 119 pp.

DT Patent

LA Japanese

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| | ----- | ---- | ----- | ----- | ----- |
| PI | WO 9812343 | A1 | 19980326 | WO 1997-JP3226 | 19970912 |
| | CA 2237849 | AA | 19980326 | CA 1997-2237849 | 19970912 |
| | AU 9742203 | A1 | 19980414 | AU 1997-42203 | 19970912 |
| | EP 870841 | A1 | 19981014 | EP 1997-940365 | 19970912 |
| | CN 1207135 | A | 19990203 | CN 1997-191606 | 19970912 |
| PRAI | JP 1996-244451 | | 19960917 | | |
| | JP 1996-285066 | | 19961028 | | |
| | WO 1997-JP3226 | | 19970912 | | |

AB Sugar nucleotides are manufd. with microorganism or enzyme producing NTP from nucleotide precursor and with microorganism or enzyme producing sugar nucleotides from sugar and NTP. Complex carbohydrates are manufd. with the described microorganism/enzyme and microorganism/enzyme that produces complex carbohydrates from sugar nucleotide and complex carbohydrate precursor. Also given was prodn. of N-acetylglucosamine-1-phosphate with galactokinase-high microorganism.

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS

AN 1998:122666 CAPLUS

TI A novel process of ***inosine*** 5'- ***monophosphate***
production using overexpressed guanosine/inosine ***kinase***

AU Mori, H.; Iida, A.; Fujio, T.; Teshiba, S.

SO Appl. Microbiol. Biotechnol. (1997), 48(6), 693-698

AB A novel process for producing IMP (5'-IMP) has been demonstrated. The process consists of two sequential bioreactions; the first is a fermn. of inosine by a mutant of ***Corynebacterium*** ammoniagenes, and the second is a unique phosphorylating reaction of inosine by guanosine/inosine ***kinase*** (GIKase). GIKase was produced by an Escherichia ***coli*** recombinant strain, MC1000(pIK75), which overexpressed the enzyme up to 50% of the total cellular protein. The overproducing plasmid, pIK75, which was randomly screened out from deletion plasmids with various lengths of intermediate sequence between the E. ***coli*** trpL Shine-Dalgarno sequence, derived from the vector plasmid, and the start codon of the GIKase structural gene. In pIK75, the start ATG was placed 16 bp downstream of the trpL Shine-Dalgarno sequence under the control of the E. ***coli*** trp promoter. Fermn. of inosine and its phosphorylation were sequentially performed in a 5-1 jar fermenter. At the end of inosine fermn. by C. ammoniagenes KY13761, culture broth of MC1000(pIK75) was mixed with that of KY13761 to start the phosphorylating reaction. Inosine in the reaction mixt. was stoichiometrically phosphorylated, and 91 mM 5'-IMP accumulated in a 12-h reaction. This new biol. process has advantages over traditional methods for producing 5'-IMP.

claim
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